Designing a Moon Station Water Filter

Your engineering team works for Vin-Tel, a company that hopes to be a NASA contractor that manufactures products for the proposed Moon Station. NASA wants your team to develop a contingency plan in the event the Moon Station’s water filtration system breaks down. You are to design an emergency water filtration system using only items available on the Moon station. You are tasked with developing and testing a working filtration system that can be used to keep the Moon Station astronauts alive until a repair mission can be launched.

Your team is competing against other Vin-Tel engineering teams to come up with a solution. Your deliverable to NASA is a presentation in which you provide the following information:

1. A description of the filtration system including assembly instructions.
2. A justification for the design of your filter.
3. Data showing the effectiveness of the filter.
4. A test plan the astronauts can use to verify the filter worked.
5. Demonstration of the model filter in action.

MATERIALS

|  |  |
| --- | --- |
| empty water bottles | Light Sensor |
| coffee filters | Conductivity Sensor |
| other available supplies | pH Sensor |
|  |  |

REferences

Some references you might use in this project are:

1. <http://www.nasa.gov/pdf/280748main_Water_Filtration_Guide.pdf>
2. <http://www.wilderness-survival-skills.com/how-to-make-a-water-filter.html>